

REMARKS

Claims 1-11 remain pending. Claim 1 has been amended. Applicants respectfully traverse the rejections of these claims.

Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 1-11 stand rejected for failing to comply with the enablement requirement. Claim 1 has been amended for purposes of clarification and in order to advance prosecution. In particular, claim 1 now recites “the displacement necessary for determining the load is carried out by the spindle/nut assembly.” This claim has clear support in the specification:

It is the advantage of the present invention that the actuator can carry out a rotation as well as a linear movement. While the rotation is used for operating the actuator, the linear position change can be used for a determination of the load-dependent on the mechanical loading of the brake cables. (Applicants’ Specification, Para. [0013]).

and

Based on the configuration of the first end of the spindle and the opening of the gear wheel according to the present invention, the displacement being necessary for determining the load is carried out by the spindle. (Applicants’ Specification, Para. [0017]).

Applicants submit amended Claim 1 obviates the enablement rejection and respectfully request that the rejection be removed.

Rejections Under 35 U.S.C. § 103(a)

Claims 1-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,590,744 (Belmond) in view of U.S. 6,213,259 (Hansen et al.). This rejection is improper because it fails to state a *prima facie* case of obviousness. First, if combined, the prior art references would not teach all the claim limitations. Second, there would be no motivation to combine the prior art references to arrive at the claimed invention

because the prior art would have to be modified to such an extent that the prior art would be rendered inoperable for its intended purpose and would no longer be recognizable.

1. The combined references fail to teach or suggest each and every limitation of the claimed invention

For a *prima facie* case of obviousness, the prior art references must teach or suggest all the claim limitations. The combination of Belmond and Hansen neither teach nor suggest arranging the load sensor “between a housing of the operating mechanism and the spindle/nut assembly” as recited in Claim 1. Without any specificity, the Office Action contends that Hansen discloses a load sensor in Hansen’s FIGS. 7 and 8. Although the Office Action leaves Applicants guessing as to what structure(s) in Hansen’s FIGS. 7 and 8 are allegedly a load sensor, at most, Hansen teaches a switch 30 and other components that are integrated between a cable 15 and a drive tube 3.

And by placing their switch 30 between their cable 15 and drive tube 3, Hansen relies on their switch 30 for operation of their brake. If the switch 30 taught by Hansen fails, their brake would not be operable. Conversely, a brake configured in accordance with Applicants’ invention is able to operate even in the event of a failure of the load sensor. (*See Applicants’ Specification, Para. [0043]*).

The combination of prior art references cited in the Office Action fail to at least suggest each and every limitation in Claim 1, and as a consequence, Applicants respectfully request that the rejection be removed. Applicants also submit Claims 2-11 are allowable, at least, by virtue of their dependence from allowable Claim 1.

2. There is no suggestion or motivation to combine the prior art because the prior art would have to be modified to such an extent so as to render the prior art inoperable for its intended purpose

The first basic criteria for establishing a *prima facie* case of obviousness is showing some suggestion or motivation to modify the reference or to combine teachings. See MPEP § 2142. Applicants submit that there is no motivation to combine Belmond and Hansen because the required modifications to the prior art would render the prior art unsatisfactory for its intended purpose and require such a substantial modification so as to change the principal operation of the prior art reference(s).

First, Belmond and Hansen would have to be combined such that “the load sensor is arranged between a housing of the operating mechanism and the spindle/nut assembly” as recited in Claim 1. As is discussed above, this limitation is neither taught nor suggested by either Belmond or Hansen. Presumably the Office Action contends that Belmond’s sheath stops 121 and screw/nut combination (103/104,105) correspond to the claimed housing and spindle/nut assembly, respectively. But if the switch 30 and other components from Hansen were integrated between the sheath stops 121 and screw/nut combination (103/104,105) in Belmond, it would have to be done “such the displacement necessary for determining the load is carried out by the spindle/nut assembly” as further recited in Claim 1 of Applicant’s invention. Belmond and Hansen cannot be combined to meet this limitation without such extensive modification so as to render the prior art unsatisfactory for its intended purpose.

The intended purpose, and principal operation, of the displacement of the screw/nut combination (103/104,105) in Belmond is for load balancing. As stated in Belmond, “[t]he device is self-balancing in terms of force, between the two brake

members by virtue of the possibility of the nut 3 or of the screw 103 moving in translation in the wheel 2.” (Belmond, column 6, lines 3-5.) Moreover, the principal operation of the switch 30 and other components from Hansen are based on the tension and compression in Hansen’s spring 38. (Hansen et al, column 13, lines 48-67.) Since the displacement of the screw/nut combination (103/104.105) in Belmond is based on load balancing, the switch 30 and other components from Hansen could not use that displacement for determining load. If Hansen and Belmond were attempted to be combined “such that the displacement necessary for determining the load is carried out by the spindle/nut assembly,” it would render them unsatisfactory for their intended purpose and would require such substantial modification so as to change the principal operation of the prior art reference(s).

For these reasons, there is no suggestion or motivation to modify the prior art references or to combine teachings in order to arrive at the claimed invention. Therefore, the Applicants respectfully submits that the obviousness rejection as to Claim 1 be withdrawn. Applicants also submit Claims 2-11 are allowable, at least, by virtue of their dependence from allowable Claim 1.

CONCLUSION

In view of the foregoing, Applicants respectfully submit that no further impediments exist to the allowance of this application and, therefore, solicit an indication of allowability. However, the Examiner is requested to call the undersigned if any question or comments arise.


The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1283.

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Respectfully submitted,

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